

APPENDIX

FALL CREEK WATERSHED ANALYSIS

ROADS ANALYSIS

The following roads analysis was conducted to assess the existing road system and potential concerns for building new roads within the Fall Creek Watershed analysis area.

Roads analysis is an integrated ecological, social, and economic approach to transportation planning, which addresses both existing and potential future roads (USFS 1999). This roads analysis follows the process outlined in the document ‘**Roads Analysis: Informing Decisions About Managing the National Forest Transportation System**’, (USFS 1999). This is not a NEPA document, but rather a site-specific Watershed analysis. This analysis defines the existing and desired conditions of the road system, and opportunities are identified to move towards the desired condition. This analysis provides a framework to identify road related concerns and management opportunities that can be incorporated into subsequent projects being evaluated through the NEPA process. If necessary, a Forest Plan amendment will be considered.

Step 1. Setting up the Analysis

-Statement of the objectives of the analysis.

To analysis the present and projected road system needed in the Fall Creek Watershed Analysis Area

-List of interdisciplinary team members and participants.

Leon Bleggi, Transportation Planner, James Capurso, Fisheries Biologist, Dusty Hincks, Range Management Specialist, Brent Porter, Recreation Manager, Gene McGregor, Fire Planner, John Lott, Soil Scientist, and Bud Alford, Wildlife Biologist.

-List of information needs.

Various analytical tools from each IDT specialist, Forest resource database, and ArcView maps. Issues for this Analysis Area will drive the intensity of analysis.

-Plan for the analysis.

The questions from Step 4 of the Roads Analysis were addressed by the IDT, during an interdisciplinary team meeting.

Step 2. Describing the Situation

-Map or other descriptions of the existing road and access system defined by the current forest plan or transportation plan.

Maps and descriptions are defined in, “Open Road and Open Motorized Trail Analysis, (Motorized Road and Trail Travel Plan, October 1999)”. Caribou-Targhee National Forest Travel Map. Also an ArcView map has been produced showing the transportation network in the Analysis.

-Basic data needed to address roads analysis issues and questions.

Each specialist has reviewed his or her resource specialty against the transportation map mentioned above for this Watershed Analysis Area.

Step 3. Identifying Issues

-Summary of key road-related issues, including their origin and basis. The issues will be presented by general category (environmental, sociocultural, and economic).

Issues were identified with forest specialists and line officers and the public during the Targhee National Forest FEIS for, "Open Road and Open Motorized Trail Analysis", (Motorized Road and Trail Travel Plan, 1999). Page S-3.

-Description of the status of current data, including sources, availability, and methods of obtaining information.

The forest's resource database and various specialist databases are the most current information available for the Watershed Analysis Area.

Step 4, Assessing Benefits, Problems, and Risks.

-A synthesis of the benefits, problems, and risks of the current road system.

Each of the 71 questions was addressed in detail by the ID team and they are listed below in the document.

-An assessment of the risks and benefits of entering any unroaded area.

Covered in the 71 questions, listed below.

-An assessment of the risks and benefits of entering any unroaded areas.

Again, the 71 questions address in detail the ability of the road system to meet objectives.

THE FOLLOWING ARE THE QUESTIONS THAT WERE ADRESSED BY THE ID TEAM AS PART OF STEP 4.

Ecosystem Functions and Processes (EF)

EF (1) What ecological attributes, particularly those unique to the region, would be affected by roading of currently unroaded areas?

1. Roads have the potential of affecting Yellowstone cutthroat trout populations and habitat.
2. Roads in previously unroaded areas would likely accelerate access for a variety of Forest management activities, including timber harvest, and will change the amount, pattern, and composition of forest cover. This may lead to a change in terrestrial wildlife and ecological processes.
3. Roads in unroaded areas could contribute to the spread of invasive species.

4. Roads in previously unroaded areas would have an affect on big game especially in their wintering range.

EF(2): To what degree do the presence, type, and location of roads increase the introduction and spread of exotic plant and animal species, insects, diseases, and parasites? What are the potential effects of such introductions to plant and animal species and ecosystem function in the area?

1. Roads serve as a corridor for the spread of noxious weeds. This has been documented in the Forest and in this particular analysis area. Seeds adhere to vehicles and animals utilizing the roads.
2. Improvement in access has facilitated the introduction of brook trout and rainbow trout, two introduced non-native species in the watershed.

EF(3): To what degree do the presence, type, and location of roads contribute to the control of insects, diseases, and parasites?

1. Roads contribute to the control of disease, and insects to a high degree by providing administrative access to treat them.
2. Insects and diseases were addressed in the 1997 Revised Forest Plan, under Standard and Guides, Management Prescriptions, and Monitoring and Evaluation.

EF(4): How dose the road system affect ecological disturbance regimes in the area?

1. The road system has facilitated fire suppression, increasing fuel loadings. They have also increased frequency of fire events by providing access for dispersed recreators who, on occasion, have started fires through carelessness.

EF(5): What are the adverse effects of noise caused by developing, using, and maintaining roads?

1. Developing, using, and maintaining roads have the potential to produce noise that could disturb people camping and picnicking near the roads. In most cases it is a short term adverse effect.
2. Wildlife may be disturbed and displaced by noise from road development, use, and maintenance.

Aquatic, Riparian Zone, and Water Quality (AQ)

AQ(1): How and where does the road system modify the surface and subsurface hydrology of the area?

1. Roads such as Fall Creek Road #077 that parallels streams, intercepting surface and subsurface flows, increasing drainage length before reaching streams.
2. Compacted surfaces of roads and dispersed campsites along roads may decrease infiltration into ground, increasing surface runoff.

AQ(2): How and where does the road system generate surface erosion?

1. Most of the roads in the analysis area produce sediment to some degree. Several roads generate sediment directly to streams. These problem roads include Upper Fall Creek Road/Trail (no number, Fall Creek Basin) and Blacktail Road #066. Some segments of Fall Creek Road have been eroded by the stream and have been treated with rip-rap and gabions by Bonneville County.

AQ(3): How and where does the system affect mass wasting?

1. Mass wasting occurred at the toe of a slope near Fall Creek Road near the Travertine Springs. The county has recently addressed this problem by installing some large gabions along the cut side of the road to prevent further sluffing material from entering Fall Creek.
2. For the most part, few road-related mass wasting sites have been documented in the analysis area.

AQ(4): How and where do road-stream crossings influence local stream channels and water quality?

1. All road crossings of streams have affected stream channels and water quality to some degree. Bridges provide less impacts than culverts and fords. The impacts noted in this analysis area included Rash Canyon Road #170, South Fork of Fall Creek #085, those being fords across Fall Creek. Five other fords were noted on the June Creek Road #376, the crossing here are small streams that drain in to Upper Fall Creek.

AQ(5): How and where does the road system create potential for pollutants, such as chemical spills, oils, de-icing salts, or herbicides to enter surface waters?

1. The most potential for spills would include Snake River Road #076 and the Fall Creek Road #077. There may be some isolated incidences where herbicides are used for control of Noxious Weeds.

AQ(6): How and where is the road system hydrologically connected to the stream system? How do the connections affect water quality and quantity (such as delivery of sediments, thermal increases, elevated peak flows)?

1. Any road that has drainage is hydrologically connected to streams. These connections increase sediment delivery to streams, increase water temperature if these roads encroach upon riparian vegetation shading the stream, and increase peak flows through decreasing water infiltration at the road surface. Examples of this include Gabions along the Fall Creek Road #077 and several segments of this road and Bates Canyon Road #182.

AQ(7): What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? How are they affected or put at risk by road-derived pollutants?

1. Beneficial uses include cold water biota and recreation uses in Fall Creek. In addition, irrigation use on Pritchard and Garden Creek. Cold water biota and irrigation uses may stay stable while recreation uses may increase. Cold water biota may be affected by sedimentation and water temperature changes.

AQ(8): How and where does the road system affect wetlands.

1. Most of Fall Creek Road #077 the trail up Fall Creek Basin, South Fork of Fall Creek Road #085 and trail #030 that continues from the road up South Fork of Fall Creek, and June Creek Road #376, all affect wetlands.

AQ(9): How does the road system alter physical channel dynamics, including isolation of flood plains; constraints on channel migration; and the movement of large wood, fine organic matter, and sediment?

1. The road system affects these parameters when it encroaches upon the stream. The road that most defines these principles would be the Fall Creek Road #077, where it comes close to Fall Creek in many sections of the road.

AQ(10): How and where does the road system restrict the migration and movement of aquatic organisms? What aquatic species are affected and to what extent

1. For this analysis area no road related barriers have been identified.

AQ(11): How does the road system affect shading, litterfall, and riparian plant communities?

1. Where the road encroaches upon the stream, there are impacts upon riparian vegetation, affecting shading and litterfall. The best example of this again would be the Fall Creek Road #077.

AQ(12): How and where does the road system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?

1. The road system increases access that can provide opportunities for fishing and does avail the potential for poaching. Road locations can have a direct habitat loss to aquatic species when placed in a riparian zone.

AQ(13): How and where does the road system facilitate the introduction of non-native aquatic species?

1. The road system increases the accessibility to streams for the introduction of non-native aquatic species.

AQ(14): To what extent does the road system overlap with areas of exceptionally high aquatic diversity or productivity, or areas containing rare or unique aquatic species or species of interest?

1. The only unique aquatic site in the analysis area that has been identified was the Travertine Springs Area where the Fall Creek Road #077 encroaches upon the spring.

Terrestrial Wildlife (TW)

TW(1): What are the direct effects of the road system on terrestrial species habitat?

1. Acreage under the road displaced vegetative community that includes big game winter range and the presence of human activities could displace wildlife. Also refer to Forest Plan Revision prescription 2.7(a), which a large part of the analysis area falls under.

TW(2): How does the road system facilitate human activities that affect habitat?

1. The road system allows people to access the National Forest and to bring in their vehicles, horses, and motorized trail vehicles for verities of reasons. They also utilize many dispersed campsites through the area.

TW(3): How does the road system affect legal and illegal human activities (including trapping, hunting, poaching, harassment, road kill, or illegal kill levels)? What are the effects on wildlife species?

1. The Forest Plan Revision analyzes the effect of road-related activities. General patterns of game harvest are a useful index of human activities. Harassment, poaching, and road kills can only be estimated in terms of open road densities at the forest level. (See prescription 2.7 and 5.4 in the Revised Forest Plan). Illegal activities are more appropriately addressed form information obtained from the Idaho Fish and Game for this analysis area.

TW(4): How does the road system directly affect unique communities of special features in the area?

1. Winter use would be the most affective to unique communities because of snowmobiles in big game winter areas. This question is addressed in forest plan analysis. (See Revised Forest Plan, standard and guides and prescription 2.7(a).
2. The only special feature in the area is the Travertine Springs, which is along Fall Creek Road #077

Economics (EC)

EC(1): How does the road system affect the agency's direct costs and revenues? What, if any, changes in the road system will increase net revenue to the agency by reducing cost, increasing revenue, or both?

1. Fall Creek Road #077 and Snake River Road # 076 are maintained by Bonneville County, but they are paid federal funds to maintain the roads. Thus providing less cost to the Forest Service to maintain more roads.
2. The road system decreases cost of fire suppression by increasing access to remote areas or by not decommissioning roads.
3. The road system decreases cost to administer range allotments by providing ease of access.

EC(2): How does the road system affect priced and non-priced consequences included in economic efficiency analysis used to assess net benefits to society?

1. Economics is addressed in the FEIS of "Open Roads and Open Trail Analysis" (Motorized Road and Trail Travel Plan) pages III-22,23. FEIS of 1997 Revised Forest Plan, Targhee National Forest, (Chapter III-79 and Chapter IV-53).

EC(3): How does the road system affect the distribution of benefits and costs among affected people?

1. See answer in EC(2).

Timber management (TM)

TM(1): How does road spacing and location affect logging system feasibility?

TM(2): How does the road system affect managing the suitable timber base and other lands?

TM(3): How does the road system affect access to timber stands needing silvicultural treatment?

1. Questions 1-3, this watershed analysis area does not include significant logging opportunities. Refer to Forest Plan Revision, Prescription area 22.7(a).

Minerals management (MM)

MM(1): How does the road system affect access to locatable, leasable, and salable minerals?

1. Road #386 Travertine Mine Spur facilitates the removal of travertine from the analysis area. This road is used only on a limited basis.

2. 2. See the FEIS for the Targhee National Forest's Oil and Gas Leasing Analysis, February 2000.

Range management (RM)

RM(1): How does the road system affect access to range allotments?

1. The roads in this analysis area allow for range management, including transportation of livestock, water hauling, herding, salt lick placements, etc., in the cattle allotments. The Fall Creek Road #077 provides access to private land where cattle grazing accrues and also to Cow Camp where livestock are herded to the corrals for transportation in and off the allotments.

Water production (WP)

WP(1): How does the road system affect access, constructing, maintaining, monitoring , and operating water diversions, impoundments, and distribution canals or pipes?

1. None of the roads in the watershed analysis area are used to maintain irrigation, municipal water, impoundments, maintaining, monitoring or operating water diversions.

WP(2): How does road development and use affect the water quality in municipal watersheds?

1. N/A For this watershed analysis.

WP(3): How does the road system affect access to hydroelectric power generation?

1. N/A for this watershed analysis.

Special forest products (SP)

SP(1): How does the road system affect access for collecting special forest products?

1. Collecting special forest products often depends on using existing forest roads. There are no major products that classifies as special forest products in this analysis area.

Special-Use Permits (SU)

SU(1): How does the road system affect managing special-use permit sites (concessionaires, communications sites, utility corridors, and so on)?

1. The road system for this area provides access to Bonneville Power Association (BPA), for power lines, a special use permit between the Forest Service and Bonneville Power Association is valid at this time.
2. It also provides access to a US cell tower.

General Public Transportation (GT)

GT(1): How does the road system connect to public roads and provide primary access to communities?

1. The road system on the North, in this analysis area connects to the county roads system and to Highway 26. On the South end of the analysis area, those roads can connect to the county road system and then to the Bone Road, although the dry farms, which has many roads can route a person in many directions before reaching the Bone Road. Other roads on the South portion of the analysis remain on the Forest road system but eventually tie into a county road system.

GT(2): How does the road system connect large blocks of land in other ownership to public roads (ad hoc communities, subdivisions, inholdings and so on)?

1. The Snake River Road #076 access subdivisions and inholdings along the river. The Fall Creek Road #077 access inholdings within the National Forest, with Fall Creek Road intersecting the Snake River Road, which intersects Highway 26.

GT(3) How does the road system affect managing roads with shared ownership or with limited jurisdiction? (RS 2477, cost-share, Prescriptive rights, FLPMA easements, FRTA easements, DOT easements).

1. The Snake River Road #076 and the Fall Creek Road #077, in 1985 Bonneville County was give the easements for these two roads. Also see FEIS Open Road and Open Motorized Trail Analysis, for status of RS 2477 Assertions; page IV-31 and Map Packet RS 2477 Road and Trail Assertions by Area Counties.

GT(4): How does the road system address the safety of road users?

1. The objective of roads analysis in the Forest Service is to provide line officers with critical information to develop **road systems that are safe and responsive to public needs and desires**, are affordable and efficiently managed, have minimal negative ecological effects on the land, and are in balance with available funding for needed management actions.

Administrative uses (AU)

AU(1): How does the road system affect access needed for research, inventory, and monitoring?

1. Road access affects research, inventories, and field monitoring. Limited or no road access increases time and costs for field observations.

AU(2): How does the road system affect investigative of enforcement activities.

1. Forest Service law-enforcement agents are faced with a growing workload paralleling the growth in forest recreation users. This new work load is adds to the traditional work related to natural resource theft of trespass. Expanded road access, particularly near towns, can add to problems with garbage dumping, vandalism and other criminal activities.

Protection (PT)

PT(1) How does the road system affect fuels management?

1. The road system dose provides access for prescribed burns for decreasing fuels and access for wildfire.
2. The Revised Forest Plan identifies fuels objectives based on ecological conditions and management direction.

PT(2) How does the road system affect the capacity of the Forest Service and cooperators to suppress wildfires?

1. Good access is critical to fire fighters; the road system does provide access for fire suppression, thus facilitating fire suppression efforts. Road #077 is a main route in this area and needs to be maintained on a regular basis to accommodate fire suppression if needed.

PT(3) How does the road system affect risk to firefighters and to public safety?

1. Increases chance of fire by increased accessibility.
2. The location of narrow roads in canyons can endanger fire fighters, because of poor sight distance, dust, smoke, and non-fire fighting personal on the roads and an increase of traffic on the roads.

PT(4) How does the road system contribute to airborne dust emissions resulting in reduced visibility and human health concerns?

1. Most of the roads in this analysis area are constructed of native material, which when dried out causes a fair amount of dust from vehicles using the road, and may cause a short period of time that dust will remain in the air making visibility difficult.
2. In the analysis area there is limited dust abatement used on the roads. The Snake River Road #076 had some short sections, which have been treated.
3. With the low volume of traffic using these roads, we feel that there is an extremely low risk to users.

Unroaded Recreation (UR)

UR(1) Is there now or will there be in the future excess supply or excess demand for unroaded recreation opportunities?

1. There is currently a dominance of motorized trails and roads systems in the analysis area. There will likely be a shortage in supply of unroaded recreation opportunity in the future. Please refer to Revised Forest Plan prescription area 2.7(a).

UR(2) Is developing new roads into unroaded areas, decommissioning of existing roads, or changing the maintenance of existing roads causing substantial changes in the quantity, quality, or type of unroaded recreation opportunities?

1. There is a trend toward encroaching upon road less areas in this watershed with roads. Our actions are decreasing the quality and quantity of unroaded recreation opportunities.
2. Some roads are proposed decommissioning within the Fall Creek Watershed. See FEIS, "Open Road and Open Motorized Trail Analysis" and Map 6C of that same packet.

UR(3) What are the effects of noise and other disturbances caused by developing, using, and maintaining roads on the quantity, quality, and type of unroaded recreation opportunities?

1. The team felt the only problem would be annoyance to some.

UR(4) Who participates' in unroaded recreation in the area affected by construction, maintaining and decommissioning roads?

1. Hikers, equestrians, mountain bikers, hunters, fishermen, motor cyclist etc. participate in unroaded recreation.

UR(5) What are these participants' attachments to the area, how strong is their feelings, and is alternative opportunities and locations available?

1. This depends upon the user group. For example, hikers maybe after serenity and peace, the motorized recreators want more opportunity to access back country, and the old time locals would like to see it the way it use to be.

Road- related recreation (RR)

RR(1) Is there now or will there be in the future excess supply or excess demand for roaded recreation opportunities?

1. Most of the area is roaded now and do not expect more new roading in the future.

RR(2) Is developing new roads into unroaded areas, decommissioning existing roads, or changing maintenance of existing roads causing significant changes in the quantity, quality, or type of roaded recreation opportunities?

1. In this watershed area most it is accessible by some form of motorized vehicle and no roads are planned for the future, however there are some roads planned for decommissioning in the future, which are unclassified roads.

RR(3) What are the adverse effects of noise and other disturbances caused by constructing, using, and maintaining roads on the quantity, quality, or type of roaded recreation opportunities?

1. There may be annoyance to some of the forest users or minor inconvenience.

RR(4) Who participates in roaded recreation in the areas affected by road constructing, maintaining, or decommissioning?

1. Recreation users accessing camping sites, site seers, livestock industry, hunters and fishermen.

RR(5) What are these participants' attachments to the area, how strong is their feelings, and is alternative opportunities and locations available?

1. See UR(5), same answer.

Passive-Use Value (PV)

PV(1) Do areas planned for road entry, closure, or decommissioning have unique physical or biological characteristics, such as unique natural features and threatened or endangered species?

1. Areas planned for road entry, closure, or decommissioning is in big game winter range.
2. Bald eagle nesting and flyway are in the Snake River between the mouth of Fall Creek and Garden Creek.
3. Fall Creek Falls in a unique feature, as well as Travertine Spring are unique.

PR(2) Do areas planned for road construction, closure, or decommissioning have unique cultural, traditional, symbolic, spiritual, or religious significance?

1. Forest consultation procedures and intergovernment agreements with the tribes to guide future cooperative efforts will comply with the protocols set forth in the National Resource Book on American Indian and Alaska Native relations Working Draft 1995 or its successor. (S) (See 1997 Revised Forest Plan)

PV(3) What , if any, groups of people (ethnic groups, subcultures, and so on) hold cultural, symbolic, spiritual, sacred, traditional, for religious values for unroaded areas planned for road entry or road closure?

1. See PR(2)

PV(4) Will road construction, closure, or decommissioning significantly affect passive-use value?

1. Yes, to some extent it will affect passive use values, some roads that have been opened for motorized travel in the past will be decommissioned in the future. See FEIS, Open Road and Open Motorized Trail Analysis, Targhee National Forest, 1999.

Social issues (SI)

SI(1) What are people's perceived needs and values for roads? How does road management affect people's dependence on, need for, and desire for roads?

1. Roads in general for this area have a great value, for recreation, livestock hauling, access to forest by varies users for whatever reason, etc. Fall Creek road #077 is a main road that goes through the analysis area and is used for both Forest Service administration and Forest use access. (Most all of these questions SI(1) – SI(10), were addressed to some extent in the FEIS, Open Road and Open Motorized Trail Analysis, Targhee National Forest, 1999).

SI(2) What are people perceived needs and values for access? How does road management affect people's dependence on, need for, and desire for access?

1. Access is the permission or ability to enter an area or reach a destination. The Fall Creek Road accesses in holdings within National Forest lands and other roads such as the Snake River road access private lands which are used for ranching also to access private homes.

SI(3) How does the road system affect access to paleontological, archaeological, and historical sites?

1. Fall Creek Road #077 access the old Fall Creek Range Station Site and is a RS 2477 assertion road by Bonneville, County. Also Garden Creek trail #026 and Pritchard Creek trail #027 and Echo Canyon Road and trail, are RS 2477 assertions.

SI(4) How does the road system affect cultural and traditional uses (such as plant gathering, and access to traditional and cultural sites) and American Indian treaty rights.

1. See PR(2)

SI(5) How are roads that are historic sites affected by road management?

1. They are not affected; they are open roads to the public and are maintained. The Fall Creek Road was transferred to Bonneville County as a road easement and the Echo Canyon Road is under the jurisdiction of the Forest Service, which is an open trail. Both are RS 2477 assertions.

SI(6) How is community social and economic health affected by road management (for example, lifestyles, businesses, tourism industry, infrastructure maintenance)?

1. See Social and Economic Effects IV-53, of the FEIS, 1997 Revised Forest Plan, Targhee National Forest. The road management for this analysis provides access for tourism, businesses, and provides power line access.

SI(7) What is the perceived social and economic dependency of a community on an unroaded area versus the value of that unroaded area for its intrinsic existence and symbolic values?

1. See first part of SI(6).
2. The economic dependency of the community on the unroaded area includes grazing, outfitting, personal hunting and fishing.
3. The intrinsic values of the unroaded area include hiking, aesthetics, solitude, wildlife and camping.

SI(8) How does road management affect wilderness attributes, including natural integrity, natural appearance, opportunities for solitude, and opportunities for primitive recreation?

1. N/A for this watershed analysis.

SI(9) What are the traditional uses of animal and plants species within the area of analysis?

1. The Fall Creek watershed analysis has several drainages containing fish that are accessed by roads or trails. Yellowstone cutthroat trout are a Regional Forester Sensitive Species and listed as a Species of Concern in the State of Idaho. They do exist in this area. Most all of the area in this watershed is also classified as 2.7, big game winter range for elk and deer. Summer time provides grazing for livestock and recreation opportunities for forest users such as horse back riding.

SI(10) How does road management affect people's sense of place/

1. Some people have been using this watershed for decades and consider it a special place. These people are ranchers, outfitters, and private forest users.
2. Fall Creek is currently a place valued by motorized vehicles recreations. They consider this their place to ride and see the country and have an outdoor experience and they don't want to see it taken away.

Civil Rights and Environmental Justice (CR)

How does the road system, or its management, affect certain groups of people (minority, ethnic, cultural, racial, disabled, and low-income groups)?

1. This is included in the FEIS, Revised Forest Plan, in general terms, in Social and Economic Effects.

Step 5. Describing opportunities and Setting Priorities

-Descriptive ranking of the problems and risks posed by the current road system. The area with the highest erosion potential is usually found at stream crossings. The most common problem at a crossing is the potential for stream diversions. Since most stream crossings will eventually fail, it is imperative to eliminate diversion potential at all existing crossings, a principle component of any erosion prevention plan within the watershed.

The road system, although relatively stable, suffers from a lack of routine maintenance on some roads. Many of the spur and feeder roads are rutted, with steep grades, and difficult to access without a 4x4 vehicle. Although the potential of a stream crossing failing is always a factor, it didn't appear that there was any immediate threat of a failure on any of the road systems that were surveyed for this watershed analysis. However there is some road or stream encroachment occurring on the Fall Creek road #066 and Fall Creek itself. In most places the road cannot be relocated because of steep hillsides that parallels the road. If any erosion treatment is to take place to correct the encroachment problems it would need to be take place in the form of stream bank improvements or protections.

-Assessment of the potential problems and opportunities of building roads in currently unroaded area.

This does not apply to this watershed analysis area.

-List of opportunities, by priority, for addressing important problems and risks. Roads #182 Bates Canyon and #056 Gibson Creek does need some maintenance to correct the drainage problems that accrue on these roads, this should be a regular maintenance objective. Blacktail Canyon road #066 where the road crosses Fall Creek, the bridge does need to be replaced sometime in the future. A proposed location for a new crossing site has been identified just down stream from the existing bridge. It is not certain if the new crossing will be a bridge or some type of a culvert. This road should receive some maintenance yearly to the Blacktail material source and then on to where the road ends at Indian Fork Road #157. A Right of Way on road #066 needs to be

acquired from the Forest boundary to road #157. The road going up Rash Canyon did have a ford crossing at Fall Creek but in October of 2001 an Arch Culvert was installed which was furnished by Bonneville Power Administration. Road #376 June Creek does have about five small stream crossings, which are fords. At this time they do not present a problem and could remain as they are, but the district would like to see all the crossings with a culvert installed to direct traffic to the same route of travel and would accommodate winter grooming activities. It is designated a winter travel route, which may or may not be groomed for snowmobiles. Road #085 South Fork of Fall Creek crosses Fall Creek by means of a ford crossing then travels a short distance and turns in to designated motorized trail. We may look at putting a trailhead on the North West side of the Fall Creek and then build a trail bridge over Fall Creek or upgrade the ford with a good solid bottom across the creek. If the road remains the as it is then it would require regular maintenance. The Indian Fork road #157 should receive regular maintenance, but more important there are several sections of this road in which a Right of Way should be acquired cross private land.

-A prioritized list of specific actions, problems, or forest plan adjustments requiring NEPA analysis.

This prioritized list should come from the Palisades Ranger District.

Step 6. Reporting

-Reports including maps, analysis, and text documentation of the roads analysis.

See the project folder documentation for the Roads Analysis for this Analysis Area.

-Maps that show the data and information used in the analysis, and the opportunities identified during the analysis.

See the project folder documentation for the Roads Analysis for this Analysis Area.